STEFANO GUALANDI
CURRICULUM VITAE ET STUDIORUM
(last update: Jun2, 2021)

Place and date of birth:	Pavia, 13 March 1975	Website:	http://matematica.unipv.it/gualandi
Work Address:	Via Ferrata 5, Pavia, I-27100	ORCID:	http://orcid.org/0000-0002-2111-3528
Telephone:	0382 985670	Blog:	http://stegua.github.io
Twitter:	@famo2spaghi	Email:	stefano.gualandi(at)unipv.it

RESEARCH INTERESTS

Integer and Linear Programming, Combinatorial Optimization, Optimization Algorithms for Machine Learning, Discrete Optimal Transport, Constraint Programming.

RESEARCH POSITIONS AND QUALIFICATIONS

16 April 2021	**National Scientific Qualification** to function as full professor. Sector: 01/A6 - Operations Research.
Nov 2019 – to date	**Associate Professor in Operations Research (SSD MAT/09)** Mathematics Department, University of Pavia
Nov 2016 – Nov 2019	**Senior Tenure Track position (RTD-B)**, Mathematics Department, University of Pavia
20 December 2013	**National Scientific Qualification** to function as associate professor. Sector: 01/A6 - Operations Research.
Oct 2013 – Nov 2016	**Researcher**, AntOptima, spin-off of Istituto Dalle Molle di Studi sull'Intelligenza Artificiale (IDSIA), Lugano, Switzerland. Research Project (EU FP7): *White Room based on reconfigurable robotic island for optoelectronics*
Jan 2011 – Sep 2013	**Postdoctoral Researcher**, Mathematics Department, University of Pavia. Project: *Algorithm Engineering for Networks and Data*. Project funded by Regione Lombardia: *Dote Ricercatori grant*
Apr 2008 – Dec 2010	**Postdoctoral Researcher**, Politecnico di Milano, DEIB. Research: *Hybrid constraint and integer programming methods very large scale optimization problems*
Jul 2002 – Apr 2005	**Research Assistant**, Université Catholique de Louvain (UCL), Louvain-la-Neuve, Belgium. Supervisor: Peter van Roy. Working at the RTP Euclide project: *Development of a mission planner for teams of Unmanned Aerial Vehicles*

EDUCATION

Mar 2005 – Feb 2008	**PhD Student in Operations Research**, Politecnico di Milano, DEIB. Thesis: *Enhancing Constraint Programming-based Column Generation for Integer Programs*. Supervisor: prof. F. Malucelli
Oct 2002 – Jul 2004	**MSc in Artificial Intelligence**, Katholieke Universiteit Leuven, Belgium. Master thesis: *Distributed artificial intelligence and multiagent systems*. Relatore: prof. M. Dennecker. Grade: **magna cum laude**.
Sep 1996 – Mar 2002	**MSc in Computer Engineering**, University of Pavia. Master thesis: *Studio e applicabilità del constraint programming al route planning*. Supervisor: prof. V. Cantoni. Co-supervisor: dott. B. Tranchero, Alenia Aeronautica. Grade: **110/110 cum laude**.

RESEARCH PROJECT GRANTS

FEDEGARI 2021   **Principal Investigator**: "*Artificial Intelligence for Predictive Maintainance of Industrial Sterilizers*". Project awarded for **90K Euro** by Fedegari, https://fedegari.com/

EUROSTAT 2020   **Principal Investigator**: "*Development of a ready-to-use algorithm for the efficient computation of approximate Kantorovich-Wasserstein distance for large spatial maps*". Project awarded for **15K Euro** by European Commission, EUROSTAT, Luxemburg

LOGISHIFT 2019   **Principal Investigator**: "*Models and Algorithms of Mathematical Optimization for disruptions management in rail freight transportation*". Project awarded for **45K Euro** by Binary Systems, http://www.binarysystem.eu

EU-JRC 2018   **Principal Investigator**: "*Application of routing to large time-dependent road networks*". Project awarded for **14K Euro** by the Joint Reserch Center of the European Commission, Sevilla

RALLO 2018   **Principal Investigator**: "*Resource Allocation Optimization 2.0*". Follow up project, funded for **13.5K Euro**. Industrial partner: ComData Group, http://www.comdata.it

NVIDIA 2018   **Principal Investigator**: "*Biomedical data analysis via Kantorovich metrics*". Project awarded by Nvidia with a GPU Quadro P6000 (value **5.7K Euro**), http:// research.nvidia.com

DOTA4ML2 2018   **Principal Investigator**: "*Distributed Optimal Transport Algorithms for Machine Learning − Part 2*", project supported by CINECA and the Italian Super Computing Resource Allocation (ISCRA)

RALLO 2017   **Principal Investigator**: "*Resource Allocation Optimization*". Project awarded for **15K Eur** via the crowd sourcing platforma Mathesia. Industrial partner: ComData Group, http://www.comdata.it

DOTA4ML 2017   **Principal Investigator**: "*Distributed Optimal Transport Algorithms for Machine Learning*", project supported by CINECA and the Italian Super Computing Resource Allocation (ISCRA)

SHORT VISITING

Nov 2018   **Visiting Researcher** at University of Southampton, Dept of Mathematical Sciences, UK

Sept 2018   **Visiting Researcher** at CIRRELT - École Polytechnique de Montréal, Montreal, Canada

Nov 2013   **Visiting Researcher** at Aachen University, Germany

Sept 2013   **Guest Lecturer** for *DM204: Scheduling, Timetabling and Routing*, Department of Mathematics and Computer Science, University of Southern Denmark, Odense

Apr 2013   **Visiting Researcher** at University of Southern Denmark, Odense

INVITED SEMINARS

Feb 2021   *Deep Learning and Combinatorial Optimization (DLC2021)*. Institute for Pure and Applied Mathematics (IPAM), UCLA Campus, Los Angeles, USA.

Oct 2020   *Data-Driven Combinatorial Optimization*. Dagstuhl Seminar, Leibniz-Zentrum für Informatik, Germany.

May 2019   *Computational Optimal Transport: A (biased) Overview*. Spring PhD School on Computational Mathematics, Statistics and Machine Learning, University of Pavia

Nov 2018	*Computing Kantorovich-Wasserstein Distances with the Network Simplex Algorithm*. University of Southampton, Department of Mathematical Sciences, UK
July 2014	*Public Transport and Big Data Analytics*. Big Data Day, University of Pavia, Istituto di Matematica Applicata e Tecnologie Informatiche, CNR, Italy

PARTECIPATION TO RESEARCH PROJECTS

EuroHPC Horizon2020	*Numerical modeling of cardiac electrophysiology at the cellular scale*
EU FP7 2013-2016	*White Room based on Reconfigurable Robotic Island for Optoeletronics*
ATM 2012-2013	*Sistema di gestione ed ottimizzazione real-time del trasporto pubblico*
MAIOR 2010	*Metodi di Constraint Programming e Ottimizzazione per la Generazione di Colonne*
PRIN 2008	*Metodi di ottimizzazione per la soluzione di problemi di pianificazione e gestione nelle reti di telecomunicazioni*
PRIN 2006	*Pianificazione di reti wireless: modelli e algoritmi di ottimizzazione*
Euclide 2002-2005	*Development of a mission planner for teams of Unmanned Aerial Vehicles*

EDITORIAL ACTIVITIES

From August 2020: **Associate Editor** of INFORMS Journal on Computing.

From 2008, reviewer for: Mathematical Programming, European Journal of Operational Research, European Journal of Computational Optimization, INFORMS Journal on Computing, Mathematical Methods of Operational Research, Discrete Applied Mathematics, Discrete Optimization, Discrete Algorithms, Networks, Journal of Heuristics, Information Processing Letters, Journal of Artificial Intelligence Research, Ad Hoc Networks, Computer Communications, Journal of Parallel and Distributed Computing, Constraints

ACTIVITIES AS PROGRAM COMMITTEE MEMBER (FROM 2013)

ICML2021	*International Conf on Machine Learning, Virtual conference*
AAAI2021	*International Conf on Artificial Intelligence, Virtual conference*
NeurIPS2021	*International Conf on Neural Information Processing Systems, Virtual conference*
AAAI2020	*International Conf on Artificial Intelligence*, Feb 7 - 12, New York , U.S
ICORES 2020	*International Conf on Operations Research and Enterprise Systems*, Feb. 22-24, Valletta, Malta
AAAI 2019	*International Conf on Artificial Intelligence*, Jan. 27 - Feb. 1, Honolulu, Hawai, U.S.
CP 2019	*International Conf on Principles and Practice of Constraint Programming*, Stamford, CT
ICORES 2019	*International Conf on Operations Research and Enterprise Systems*, Jan. 19-21, Prague
IJCAI 2018	*International Joint Conf on Artificial Intelligence,* July 13-19, Stockholm
AAAI 2018	*International Conf on Artificial Intelligence*, Feb 2-7, New Orleans
ICORES 2018	*International Conf on Operations Research and Enterprise Systems*, Jan 23-25, Madeira
AAAI 2017	*Conf on Artificial Intelligence,* 4-9 February, San Francisco
ICORES 2017	*International Conf on Operations Research and Enterprise Systems*, Feb 23-25, Porto
SD3C 2017	*Workshop on Sustainable Data Centres and Cloud Computing*, Dec 5-8, 2017, Austin, Texas
ECAI 2016	*European Conf on Artificial Intelligence*, 29 August-2 September, The Hague, Olanda
IJCAI 2016	*International Joint Conf on Artificial Intelligence*, July 9-15, New York
AAAI 2016	*Conf on Artificial Intelligence*, February 12-17, Phoenix, Arizona

PARTECIPATION TO INTERNATIONAL CONFERENCES (FROM 2013)	
COW 2020	Combinatorial Optimization Workshop, 6-10 January 2020, Aussois (**Speaker**)
CPAIOR 2019	International Conf on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, 4-7 June, Thessaloniki, Greece (**Speaker**)
EWGPOR 2019	EURO working group on Practice of OR, 11-12 March, Bologna (**Speaker**)
NeurIPS 2018	International Conf on Neural Information Processing Systems, 2-8 December, 2018, Montreal
ISMP 2018	International Symposium of Mathematical Programming, 2-6 July 2018, Bordeaux (**Speaker**)
COW 2018	Combinatorial Optimization Workshop, 8-12 January 2018, Aussois (**Speaker**)
SEA 2017	International Symposium on Experimental Algorithms, 21-23 June, 2017, London
SIMAI 2016	Italian Society of Industrial and Applied Mathematics, 13-16 Sep, 2016, Milano (**Speaker**)
WIRN 2015	Italian Workshop on Neural Networks, 20-22 May, Vietri sul Mare, Salerno (**Speaker**)
COW 2014	Combinatorial Optimization Workshop, 6-10 January 2014, Aussois (**Speaker**)
EURO 2013	European Conf on Operational Research, 1-4 July 2013, Roma (**Speaker**)

TEACHING ACTIVITIES

PHD LEVEL

- Member of the Faculty Board of the International PhD Program in Computational Mathematics and Decision Sciences, http://compmat.unipv.it/. Starting on April, 2019
- Lecturer: *Solving Complex Optimization Problems with Constraint Modeling Languages*, Politecnico di Milano, DEIB. Duration: 20 hours, second semester a.a. 2009/10

MSC/BSC LEVEL

From 2018, I am the coordinator of Laurea Magistrale Plus in Mathematics, a Master Degree program in collaboration with industrial partners: http://matelmp.unipv.eu/

From 2015, I have been lecturer for the following courses:

- *Optimization Models and Algorithms for Data Science*, 6 ECTS, Mathematics Department, University of Pavia, a.a. 2019/2020 to date
- *Optimization Algorithms for Machine Learning*, Short Course (10 hours), Collegio Ghislieri, Pavia, a.a. 2018/2019.
- *Numerical Methods - Nonlinear Optimization*, 3 ECTS, Bioengineering, University of Pavia, from 2017 to date.
- *Problemi di ottimizzazione*, 3 ECTS, (Co-Lecturer with G. Savaré) University of Pavia, a.a. 2015/16.
- *Programming 1*, 6 ECTS, Mathematics Department, University of Pavia, from 2017 to date.
- *Programming 2*, 3 ECTS, Mathematics Department, University of Pavia, a.a. 2016/17.

Before 2013, I have been teaching assistant for the following courses:

- *Foundations of Operations Research* (both in Italian and English), *Design and Analysis of Algorithms*, *Graph Optimization*, Politecnico di Milano, from 2005 to 2013.
- *Data structures and algorithms* (in French), *Introduction to Informatics* (in French). Université Catholique de Louvain, (UCL), 2004/05

E-Learning Projects

- **S. Gualandi**. *Exam-at-home*: Web application for the lab exam of the course *Foundations of Operations Research*. Project funded by Politecnico of Milan, 2010. http://exam-at-home.appspot.com

- S. Bosio, G. Carello, **S. Gualandi**, F. Malucelli. *La fabbrica dei Modelli*. Project funded by Centro METID, Politecnico of Milano, 2007. http://home.dei.polimi.it/carello/progettificio

PHD STUDENT SUPERVISION

2020 – E.Vercesi, Mathematics Dept, University of Pavia

2019 – A. Codegoni, Mathematics Dept, University of Pavia.

2019 – L. Ferrarini, Mathematics Dept, University of Pavia.

2017/20 G. Auricchio, Mathematics Dept, University of Pavia. Co-supervision (50%) with M. Veneroni

RECENT MSC/BSC STUDENT SUPERVISION (DISSERTATIONS)

- L. Muffone. *Integer Programmaing methods for the optimal scheduling of meteorologists*. Laurea magistrale IUSS, 2019.
- M. Mascherpa. *Word Embedding tramite Reti Neurali*. Laurea triennale IUSS, 2019.
- E. Filicicchia. *Reti Neurali Artificiali*. Laurea triennale in Matematica, 2018.
- E. Chenchen. *Trasporto Ottimo Entropico su Spazi Discreti: Aspetti Teorici e Computazionali*. Laurea triennale in Matematica, 2018.
- G. Lorini. *Modelli di Programmazione Intera per Problemi di Biologia Computazionale*. Laurea triennale in Bioingegneria, 2018.
- L. Radici. *Analisi di Dati Multimodali Univariati*. Laurea triennale in Bioingegneria, 2018.
- L. Frizzi. *Confronto tra Citogrammi mediante distanza di Wasserstein*. Laurea triennale in Bioingegneria. 2018.
- A. Chiarotto. *Analisi Sperimentale di Sistemi di Raccomandazioni*. Laurea magistrale in Matematica, 2017.
- F. Alfo. *Pianificazione delle consegne e allocazione di prodotto: Modelli di Ottimizzazione*. Laurea magistrale in Matematica, 2017.

PUBLICATION LIST

JOURNAL PAPERS

[J1]   S. Coniglio, **S. Gualandi**. *On computing the bound of the closure of rank inequalities with a small right-hand side and the maximum subgraph with bounded stability number problem*. Under revision, second round, to appear on INFORMS Journal on Computing.

[J2]   F. Bassetti, **S. Gualandi**, M. Veneroni. *On the Computation of Kantorovich-Wasserstein Distances between 2D-Histograms by Uncapacitated Minimum Cost Flows*. SIAM Journal on Optimization, 30 (3), 2441-2469, 2020.

[J3]   G. Auricchio, A. Codegoni, **S. Gualandi**, G. Toscani, M. Veneroni. *The Equivalence of Fourier-based and Wasserstein Metrics on Imaging Problems*. To appear on Rendiconti Lincei. Scienze Fisiche e Naturali, 2020.

[J4]   **S. Gualandi**, G. Toscani. *Size distribution of cities: A kinetic explanation*. Physica A: Statistical Mechanics and its Applications 524, 221-234, 2019. DOI: 10.1016/j.physa.2019.04.260

[J5]   **S. Gualandi**, G. Toscani. *Human behavior and lognormal distribution. A kinetic description*. Mathematical Models and Methods in Applied Sciences, vol. 29(4), 717-753, 2019. DOI: 10.1142/S0218202519400049

[J6]   S. Gualandi, G. Toscani. *Call center service times are lognormal. A Fokker-Planck description*. Mathematical Models and Methods in Applied Sciences. vol. 28 (8), 1513-1527, 2018. DOI: 10.1142/S0218202518500410

[J7]   S. Gualandi, G. Toscani. *Pareto tails in socio-economic phenomena: A kinetic description*. Economics: The Open-Access, Open-Assessment E-Journal, vol. 12(31), 1-17, 2018. DOI: 10.5018/economics-ejournal.ja.2018-31

[J8]   M. Chiarandini, R. Fagerberg, S. Gualandi. *Handling Preferences via Lexicographic Optimization in Project Assignment*. Annals of Operations Research, vol. 275(1), 39-78, 2017. DOI: 10.1007/s10479-017-2710-1

[J9]   B. Rostami, F. Malucelli, P. Belotti, S. Gualandi. *Lower bounding procedure for the asymmetric quadratic traveling salesman problem*. European Journal of Operational Research, vol. 253(3): 584-592, 2016, Elsevier. DOI: 10.1016/j.ejor.2016.03.031

[J10]   M. Lombardi, S. Gualandi. *A Lagrangian Propagator for Artificial Neural Networks in Constraint Programming*. Constraints, vol. 21, 435-462, 2016, Springer. DOI: 10.1007/s10601-015-9234-6

[J11]   S. Carosi, S. Gualandi, F. Malucelli, E. Tresoldi. *Delay Management in Public Transportation: Service Regularity Issues and Crew Re-scheduling*. Transportation Research Procedia, vol. 10: 483-492, 2015, Elsevier. DOI: 10.1016/j.trpro.2015.09.002

[J12]   E. Amaldi, S. Coniglio, S. Gualandi. *Coordinated Cutting Plane Generation via Multi-objective Separation*. Mathematical Programming - Series A, vol. 143(1): 87-110, 2014, Springer. DOI: 10.1007/s10107-012-0596-x

[J13]   G. Galbiati, S. Gualandi, and F. Maffioli. *On minimum reload cost cycle cover*. Discrete Applied Mathematics, vol. 164(1): 112-120, 2014, Elsevier. DOI: 10.1016/j.dam.2011.12.006

[J14]   S. Gualandi, F. Malucelli. *Constraint Programming-based Column Generation*. Annals of Operations Research, vol. 204(1): 11-32, 2013, Springer. DOI: 10.1007/s10479-012-1299-7

[J15]   S. Gualandi, F. Maffioli, C. Magni. *Branch-and-price approach to the k-clustering minimum biclique completion problem*. International Transactions in Operations Research, vol. 20(1):101-117, 2013, Wiley. DOI: 10.1111/j.1475-3995.2012.00860.x

[J16]   S. Gualandi, F. Malucelli. *Exact Solution of Graph Coloring Problems via Constraint Programming and Column Generation*. INFORMS Journal on Computing, 24(1): 81-100, 2012, INFORMS. DOI: 10.1287/ijoc.1100.0436

[J17]   S. Gualandi, F. Malucelli. *A simple branching scheme for Vertex Coloring Problems*. Discrete Applied Mathematics, 160(1-2): 192-196, 2012, Elsevier. DOI: 10.1016/j.dam.2011.10.012

[J18]   M. Chiarandini, L. Di Gaspero, S. Gualandi, A. Schaerf. *The Balanced Academic Curriculum Problem Revisited*. Journal of Heuristics, 18(1):119-148, 2012, Springer. DOI: 10.1007/s10732-011-9158-2

[J19]   A. Capone, L. Chen, S. Gualandi, D. Yuan. *A New Computational Approach for Maximum Link Activation in Wireless Networks under the SINR Model*. Transactions on Wireless Communications, 10(5): 1368-1372, 2011, IEEE. DOI: 10.1109/TWC.2011.030311.100777

[J20]   A. Capone, S. Gualandi, D. Yuan. *Joint routing and scheduling optimization in arbitrary ad hoc networks: Comparison of cooperative and hop-by-hop forwarding*. Ad Hoc Networks Journal, 9(7): 1256-1269, 2011, Elsevier. DOI: 10.1016/j.adhoc.2011.02.002

[J21]   G. Galbiati, S. Gualandi, F. Maffioli. *Computational Experience with a SDP-based Algorithm for Maximum Cut with Limited Unbalance*. Networks, 55(3): 247-255, 2010, Wiley. DOI: 10.1002/net.20369

[J22] A. Capone, G. Carello, I. Filippini, **S. Gualandi**, F. Malucelli. *Solving a Resource Allocation Problem in Wireless Mesh Networks: a Comparison Between a CP-based and a Classical Column Generation*. Networks, 55(3):221–233, 2010, Wiley. DOI: 10.1002/net.20367

[J23] A. Capone, G. Carello, I. Filippini, **S. Gualandi**, F. Malucelli. *Routing, Scheduling, and Channel Assignment in Wireless Mesh Networks: optimization models and algorithms*. Ad Hoc Networks, 8(6): 545-563, 2010, Elsevier. DOI: 10.1016/j.adhoc.2009.11.003

[J24] F. Amigoni, **S. Gualandi**, D. Menotti, G. Sangiovanni. *A multiagent architecture for controlling the Palamede satellite*. Web Intelligence and Agent Systems: an International Journal, 8(3): 269-289, 2010, IOS Press. DOI: 10.3233/WIA-2010-0191

[J25] **S. Gualandi**, F. Malucelli. *Constraint Programming-based Column Generation: a Survey*. **Invited Survey**. 4OR - A Quarterly Journal of Operations Research. 7(2):113-137, 2009, Springer. DOI: 10.1007/s10288-009-0101-4

[J26] **S. Gualandi**. *Enhancing CP-based Column Generation for Integer Programs*. 4OR - A Quarterly Journal of Operations Research, 7(3):289-292, 2009, Springer. DOI: 10.1007/s10288-008-0080-x

PAPERS IN REVISION (SUBMITTED)

[J27] R. Bellazzi, A. Codegoni, **S. Gualandi**, G. Nicora, E. Vercesi. *The Gene Mover's Distance: Single-cell similarity via Optimal Transport*. https://arxiv.org/pdf/2102.01218

[J28] L. Ferrarini, **S. Gualandi**. *Total Coloring and Total Matching: Polyhedra and Facets*. https://arxiv.org/pdf/2105.09827

[J29] G. Auricchio, A. Codegoni, S. Gualandi, L. Zambon. *The Fourier Loss Function*. https://arxiv.org/abs/2102.02979

WORKING PAPERS

[J27] **S. Gualandi**, L.M. Rousseau. *Computing Wasserstein Distances via GPU-accelerated Column Generation*, 2021.

BOOK TRANSLATIONS AND BOOK CHAPTERS

[B1] Translator in Italian (under supervision of F. Maffioli) of: Bernhard Korte e Jens Vygen, *Combinatorial Optimization - Theory and Algorithms*, Springer Verlag. 630 pagg. ISBN: 978-88-470-1522-7

[B2] A. Capone, I. Filippini, **S. Gualandi**, D. Yuan. *Resource optimization in multi-radio multi-channel wireless mesh networks*. In "Mobile Ad hoc networking: the cutting edge directions", eds. S. Basagni, M. Conti, S. Giordano, I. Stojmenovic. Capitolo 7, pagg. 241-274, Wiley Press, 2013.

THESIS

[T1] **S. Gualandi.** *Enhancing CP-based Column Generation for Integer Programs*. Politecnico di Milano, 2008.

PEER-REVIEWED PAPERS PUBLISHED IN CONFERENCE PROCEEDINGS

[C1] **S. Gualandi**, L.-M. Rousseau, P.-Y. Bouchet. *Primal Heuristics for Wasserstein Barycenters*. (***BEST PAPER AWARD***). In Proc. of International Conf on Integration of Artificial Intelligence and Operations Research techniques in Constraint Programming for Combinatorial Optimization Problems (CPAIOR), 2020.

[C2] A. Gennaro, **S. Gualandi**, M. Veneroni. *The Maximum Nearby Flow Problem*. In: Paolucci M., Sciomachen A., Uberti P. (eds) Advances in Optimization and Decision Science for Society, Services and Enterprises. AIRO Springer Series, vol 3. Springer, Cham, 2019.

[C3] A. Gennaro, F. Bassetti, **S. Gualandi**, M. Veneroni. *Computing Wasserstein Barycenters via Linear Programming*. In Proc. of International Conference on Integration of Artificial Intelligence and Operations Research techniques in Constraint Programming for Combinatorial Optimization Problems (CPAIOR), LNCS 11494, 355-363, 2019.

[C4] A. Gennaro, F. Bassetti, **S. Gualandi**, M. Veneroni. *Computing Kantorovich-Wasserstein Distances on d-dimensional histograms using (d+1)-partite graphs*. Advances in Neural Information Processing Systems (NeurIPS) 31, 5793-5803, 2018.

[C5] M. Fiasché, D.E. Liberati, **Gualandi S.**, M. Taisch. *Quantum-Inspired Evolutionary Multiobjective Optimization for a Dynamic Production Scheduling Approach*. In Multidisciplinary Approaches to Neural Computing. Smart Innovation, Systems and Technologies, vol 69, 2018, Springer.

[C6] S. Coniglio, **S. Gualandi**. *On the separation of topology-free rank inequalities for the max stable set problem*. In Proc. of International Symposium on Experimental Algorithms (SEA). LIPIcs-Leibniz International Proceedings in Informatics. Vol. 75. Schloss Dagstuhl-Leibniz-Zentrum fuer Informatik, 2017.

[C7] B. Rostami, F. Malucelli, P. Belotti, **S. Gualandi**. *Quadratic TSP: A lower bounding procedure and a column generation approach*. In Proc. of Computer Science and Information Systems (FedCSIS), pp. 377-384, 2013.

[C8] M. Lombardi, **S. Gualandi**. *A new propagator for two-layer neural networks in empirical model learning*. In Proc. of the International Conference on Principles and Practice of Constraint Programming (CP) LNCS 8124, 448–463, 2013

[C9] **S. Gualandi**, M. Lombardi. *A simple and effective decomposition for the multidimensional binpacking constraint*. In Proc. of the International Conference on Principles and Practice of Constraint Programming (CP) LNCS 8124, 356–364, 2013

[C10] G. Galbiati, **S. Gualandi**. *Coloring of Paths into Forests.* In Proc. of Cologne Twente Workshop on Graphs and Combinatorial Optimization (CTW), pp. 113–116, 2013

[C11] **S. Gualandi**, F. Malucelli. *Resource constrained shortest paths with a super additive objective function*. In Proc. of International Conference on Principles and Practice of Constraint Programming (CP), LNCS 7514, 299-315, 2012

[C12] F. Maffioli, G. Galbiati, **S. Gualandi**. *On minimum changeover cost arborescences*. In Proc. of International Symposium on Experimental Algorithms (SEA), LNCS 6630, 112-123, 2011

[C13] M. Chiarandini, G. Galbiati, **S. Gualandi**. *Efficiency issues in the RLF heuristic for graph coloring*. In Proc. of Metaheuristics International Conference (MIC), 461-469, 2011

[C14] P. Cremonesi, A. Sansottera, **S. Gualandi**. *Optimizing cooling and server power consumption*. In Proc. of IEEE International Conference on Intelligent Computer Communication and Processing (ICCP), 455-462, 2011

[C15] P. Cremonesi, A. Sansottera, **S. Gualandi**. *On the cooling-aware workload placement problem*. In Proc. of Workshop on Artificial Intelligence for Data Center Management and Cloud Computing (AIDC), 2-7, 2011

[C16] E. Amaldi, S. Coniglio, **S. Gualandi**. *Improving Cutting Plane Generation with 0-1 Inequalities by Bi-criteria Separation*. In Proc. of International Symposium on Experimental Algorithms (SEA), LNCS 6049, 266-275, 2010

[C17] **S. Gualandi**, F. Malucelli, D. Sozzi. *On the Design of the Next Generation Access Networks*. In Proc. of International Conference on Integration of Artificial Intelligence and Operations Research techniques in Constraint Programming for Combinatorial Optimization Problems (CPAIOR), LNCS 6140, 162-175, 2010

[C18] **S. Gualandi,** K. Dhyani, P. Cremonesi. *A constraint programming approach for the service consolidation problem*. In Proc. of International Conference on Integration of Artificial Intelligence and Operations

Research techniques in Constraint Programming for Combinatorial Optimization Problems (CPAIOR), LNCS 6140, 97-101, 2010

[C19]   G. Galbiati, S. Gualandi, F. Maffioli. *On minimum reload cost cycle cover*. In Proc. of International Symposium on Combinatorial Optimization (ISCO). Electronic Notes in Discrete Mathematics, 36:81–88, 2010

[C20]   S. Gualandi, F. Malucelli, D. Sozzi. *On the Design of the Fiber To The Home Networks*. In Proc. of Cologne Twente Workshop on Graphs and Combinatorial Optimization (CTW), 65-68, 2010

[C21]   S. Gualandi, F. Maffioli, C.Magni. *A Branch-and-Price Approach to the k-Clustering Minimum Biclique Completion Problem*. In Proc. of Cologne Twente Workshop on Graphs and Combinatorial Optimization (CTW) 69-72, 2010

[C22]   S. Gualandi, F. Malucelli. *Weighted Biclique Completion via CP-SDP Randomized Rounding*. In Proc. of European Workshop on Mixed Integer Nonlinear Programming (EWMINLP), 223–230, 2010

[C23]   G. Sangiovanni, F. Amigoni, S. Gualandi. *A multiagent system for efficient electrical energy management on the palamede satellite*. In Proc. of International Power Electronics and Motion Control Conference, (EPE-PEMC), 39-46, 2010

[C24]   S. Gualandi. *k-Clustering Minimum Biclique Completion Via a Hybrid CP and SDP approach*. In Proc. of International Conference on Integration of Artificial Intelligence and Operations Research techniques in Constraint Programming for Combinatorial Optimization Problems (CPAIOR), LNCS 5547, 87-101, 2009

[C25]   S. Gualandi, F. Malucelli. *Graph Coloring via Constraint Programming-based Column Generation*. In Proc. of International Network Optimization Conference (INOC), 2009

CONFERENCE PRESENTATIONS (WITHOUT PUBLISHED PROCEEDINGS)

[W1]   S. Gualandi, L.-M. Rousseau. *A note on a GPU-based implementation of the Network Simplex algorithm*. Combinatorial Optimization Workshop (COW), January 2020, Aussois, France

[W2]   S. Gualandi. *Optimization via Machine Learning-based Simulation: Application to Modern Call Centers Management.* EURO working group on Practice of OR, 11-12 March, Bologna, 2019

[W3]   S. Gualandi, F. Malucelli. *Approximate Wasserstein Distances of order 1 between grey scale images (2D Histograms)*. International Symposium of Mathematical Programming (ISMP), 2018

[W4]   F. Bassetti, S. Gualandi, M. Veneroni. *On the Computation of Distances between 2D-Histograms by Minimum Cost Flows*. Combinatorial Optimization Workshop (COW), January 2018, Aussois, France

[W5]   S. Gualandi, L.M. Gambardella, A. Mignatti, M. Fiaschè. *Dynamic Production Scheduling of High Power Multiemitter Diode Lasers.* Italian Workshop on Neural Networks (WIRN), 2016

[W6]   S. Gualandi, L.M. Gambardella, A. De Maria. *Optimization Algorithms for Active Alignment of Fast Axis Collimating Lens*. Italian Workshop on Neural Networks (WIRN), 2015

[W7]   S. Gualandi, L.M. Gambardella, A. De Maria. *Dynamic Optimization of the Operations of a Robotic Arm*. Italian Workshop on Neural Networks (WIRN), 2015

[W8]   S. Gualandi, S. Coniglio. *On the separation of rank inequalities for the max stable set problem*. Combinatorial Optimization Workshop (COW), January 2014, Aussois, France

[W9]   S. Gualandi, F. Malucelli, S. Carosi, F. Bernazzani. *Resource Constrained Shortest Paths with Side Constraints and Non Linear Costs*. European Conference on Operational Research (EURO), 2013. Sessione a inviti su "*Combinatorial Optimization Problems in Transportation*"

[W10] **S. Gualandi**, F. Malucelli. *Resource constrained shortest paths with a super additive objective function*. International Symposium of Mathematical Programming (ISMP), 2012

[W11] M. Chiarandi, **S. Gualandi**. *Towards Fair and Efficient Assignments of Students to Projects*. Presentato a: International Conference on the Practice and Theory of Automated Timetabling (PATAT), 2012

[W12] S. Coniglio, **S. Gualandi**, E. Amaldi. *(beyond) sequentially coordinated cutting plane generation for inequalities with integer coefficients*. Mixed Integer Programming Workshop (MIP), 2011

[W13] S. Coniglio, **S. Gualandi**, E. Amaldi. *Exact bi-criteria cutting plane generation for inequalities with 0-1 coefficients*. Mixed Integer Programming Workshop (MIP), 2010

[W14] S. Bosio, G. Carello, **S. Gualandi**, F. Malucelli. *A transmission scheduling problem in wireless networks*. International Symposium of Mathematical Programming (ISMP), 2006